

Review & Preview

- 1-25. The day before Gerardo returned from a two-week trip, he began to wonder whether he left his plants inside his apartment or outside on his deck. He knows these facts:

- If his plants are indoors, he must water them at least once a week or they will die.
- If his plants are outdoors and it rains, then he does not have to water them. Otherwise, he must water them at least once a week or they will die.
- It has not rained in his town for two weeks.



When Gerardo returns, will his plants be dead? Explain your reasoning.

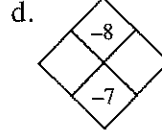
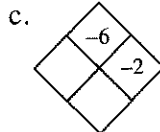
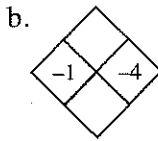
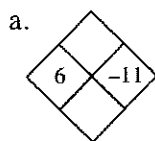
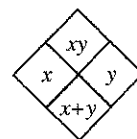
- 1-26. Solve the equations below for x , if possible. Be sure to check your solution.

a. $\frac{3x-1}{4} = -\frac{5}{11}$ b. $6 - 5(2x - 3) = 4x + 7$ c. $\frac{3x}{4} + 2 = 4x - 1$

- 1-27. Sketch an example of each triangle below, if possible. If not possible, explain why not. Refer to the glossary if you need help with the vocabulary.

- a. right isosceles triangle b. right obtuse triangle
c. scalene equilateral triangle d. acute scalene triangle

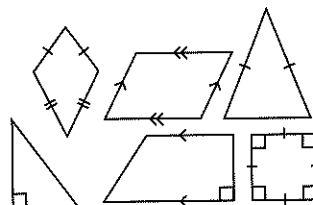
- 1-28. Copy these Diamond Problems and use the pattern you discovered earlier, shown at right, to complete each problem. Some of these may be challenging!



- 1-29. Mei puts the polygons at right into a bucket and asks Brian to pick one.

- a. What is the probability that he pulls out a quadrilateral with at least one pair of parallel sides?

- b. What is the probability that he pulls out a polygon with rotation symmetry?



1.2.2

Perimeters and Area

In this lesson, you will use your algebraic skills to find perimeters, areas, and volumes of polygons and solids. You will also learn how to enlarge patterns and designs.

1-30. CARPET

Your friend wants to buy a new carpet for their room. They own a rectangular room that is 10 feet long and 12 feet wide. They want to know how much carpet they need to buy. One of the designs they like is a pattern that is 1 foot wide. How much carpet will they need to buy?

Alonzo wants to know the perimeter of a rectangle that is 10 feet long and 12 feet wide. He knows that the perimeter is the sum of all the sides. How much carpet will he need to buy?

Since the perimeter is the sum of all the sides, the area of the rectangle is 10 feet times 12 feet. How much carpet will he need to buy?

Your Turn
Figure out how much carpet your friend needs to buy. Be ready to explain your answer.